

CLAIMS

1. A method for allowing a Mobile IPv4 Mobile Node to communicate from an IPv6 visited network, and across IPv6 networks, back to a Mobile IPv4 Home Agent,
5 in a Mobile IPv4 Network, comprising:
 - a Mobile Node supporting Mobile IPv4 registration procedures including IPv6 addressing details to support MN – HA communication;
 - a Home Agent supporting connectivity to both IPv4 and IPv6 networks to facilitate remote access;
 - 10 - tunneling of IPv4 traffic over IPv6 networks from the Mobile Node;
 - tunneling of Mobile IPv4 traffic over IPv6 networks from the Home Agent.
2. A method according to claim 1, wherein the Mobile Node acquires an IPv6 address in the visited network.
- 15 3. A method according to claim 2 wherein the Mobile Node sends a MIPv4 Registration Request over IPv6 using the acquired IPv6 address as source address, and the Home Agent IPv6 address as destination address.
- 20 4. A method according to claim 2, wherein the Mobile Node includes the acquired IPv6 address as an IPv6 care-of address extension in the Mobile IPv4 Registration Request.
5. A method according to claim 1, wherein the Home Agent extracts the IPv6
25 care-of address from the Registration Request extension and uses it as the tunnel endpoint for the IPv4 in IPv6 tunnel back to the Mobile Node.
6. A method according to claim 1, wherein the Mobile Node tunnels IPv4 packets in IPv6 headers, destined for the Home Agent.
- 30 7. A method according to claim 1, wherein the Mobile Node de-capsulates IPv6 tunneled IPv4 packets from the Home Agent.

8. A method according to claim 1, wherein the Home Agent accepts Mobile IPv4 Registration Requests arriving on an IPv6 network.
 9. A method according to claim 1, wherein the Home Agent tunnels IPv4
5 packets in IPv6 headers, destined for the Mobile Node.
 10. A method according to claim 1, wherein the Home Agent de-capsulates IPv6 tunneled IPv4 packets from the Mobile Node.
 - 10 11. A method according to claim 1, wherein the Home Agent employs UDP tunneling from the HA to the MN in accordance with RFC 3519.
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